

Mississippi Canyon 252

ASSESSMENT PLAN TO DETERMINE THE BACKGROUND OILING RATE FOR LIVE BIRDS (BIRD STUDY #25)

Approval of the *Assessment Plan to Determine the Background Oiling Rate for Live Birds* is for the purposes of obtaining data for the Natural Resource Damage Assessment. Each party reserves its right to produce its own independent interpretation and analysis of any data collected pursuant to this Assessment Plan.

This plan will be implemented consistent with existing trustee regulations and policies. All applicable state and federal permits must be obtained prior to conducting work.

The Trustees have developed a preliminary conceptual model of the *Deepwater Horizon* release, potential pathways and routes of exposure, and potential receptors. This preliminary model has informed the Trustees' decision to pursue the studies outlined in the Assessment Plan.

Department of the Interior Trustee Representative

Date

Louisiana Trustee Representative

Date

BP Representative

Date

Mississippi Canyon 252

ASSESSMENT PLAN: BACKGROUND OILING RATE FOR LIVE BIRDS (BIRD STUDY #25)

1.0 INTRODUCTION

The *Deepwater Horizon* / Mississippi Canyon (MC 252) Oil Spill (“Spill”) began on or about April 20, 2010 in the Gulf of Mexico. As part of the ongoing Natural Resource Damage Assessment (NRDA), Co-Trustees are evaluating oil spill-related injuries to birds, including but not necessarily limited to seabirds, colonial waterbirds, coastal marsh birds, and shorebirds.

In 2010 and 2011, the Trustees implemented a number of studies to determine percentages of bird populations which appeared visibly oiled following the Spill. Since oil can enter the environment in many ways, birds could be impacted in the absence of an oil spill event. Oil can be present in the northern Gulf of Mexico from natural seeps that release oil from the ocean bottom, marine vessels that release oil through bilge discharges and engine exhaust, and releases from oil and gas exploration/production activities (National Research Council 2003, National Response Center Database).

The objective of this study is to quantify a background oiling rate for live birds in the northern Gulf of Mexico.

2.0 STUDY IMPLEMENTATION PERIOD

The study will cover one year of monthly surveys, to observe resident and migrating birds for visible oiling. The first survey will begin in 2014. Twenty-four weeks of intermittent searches (each two week survey event separated by a two-week period with no surveys) will extend for a one year period following implementation.

However, the Trustees reserve the right to postpone the study partly or in its entirety or shorten the study if at any time before the study begins or during implementation the Trustees conclude, by joint decision of affected co-Trustees, that conditions within the study area or at certain locations within the study area preclude the collection of data useful to determining background oiling rates on live birds. Such decisions will be transmitted in writing to all signatory parties prior to implementation of actions resulting from the decisions.

3.0 STUDY AREA

The study area includes bird congregational areas from Galveston Bay inlet, Texas, to Apalachicola, Florida. Waterbird colonies and roost sites will be surveyed along the Louisiana, Mississippi, Alabama, Florida, and Texas coasts in areas where observations can be made from a boat or on foot at an appropriate distance to avoid disturbance, as determined by best professional judgment.

4.0 STUDY DESIGN

This study will collect information on the background oiling rates for birds in the northern Gulf of Mexico. Consistent with prior studies, observers will evaluate live birds using spotting scopes

and binoculars to identify the presence or absence of visible oil on the birds, and will take high resolution photographs of surveyed congregations of birds to corroborate visual observations. Observers will avoid areas that are known to still be contaminated with *Deepwater Horizon*/MC 252 oil.

Consistent with earlier studies, to optimize the number of birds that can be evaluated during survey effort, the observers will visit areas where birds are known to congregate (e.g., foraging areas, roosting/loafing areas, breeding colonies). Observers will respect the sensitivity of colonies to human disturbance and avoid areas or situations that would adversely disturb birds. Observers will collect information on all bird species (Table 1, Examples of species to monitor for oiling rates, for examples).

No birds are intended to be captured or handled for this effort. Should opportunistic sampling be necessary, appropriate scientific and other use permits will be obtained for all sample locations.

Surveys will be land-based and boat-based using the oiling rate observation methods from these previously implemented *Deepwater Horizon* NRDA Bird Studies:

- Work Plan for Estimating Oiling and Mortality of Breeding Colonial Waterbirds from the Deepwater Horizon (MC252) Oil Spill (Bird Study #4)
- Work Plan for Estimating Shorebird Oiling and Mortality - Deepwater Horizon (Mississippi Canyon 252) Oil Spill (Bird Study #5)
- Work Plan for Estimating Wintering Waterfowl Oiling and Mortality (Bird Study #10)
- Work Plan for Determining Oiling Rates and Mortality of Wintering Open-Water Waterbirds from the Deepwater Horizon (Mississippi Canyon 252) Oil Spill (Bird Study #12)

(The final work plans are available on the Deepwater Horizon Natural Resource Damage Assessment and Restoration Administrative Record Index at:
<http://www.doi.gov/deepwaterhorizon/adminrecord/Pre-assessment-Birds.cfm>.)

Survey teams will consist of at least two observers and one photographer. Observation teams may include contract staff, Trustee representatives, and BP representatives. Oiling rate observers will be skilled birders familiar with the species found in the northern Gulf of Mexico. Boat teams will have an additional person designated as a boat captain. There will be two teams dedicated to land-based observations and six teams dedicated to boat-based observations. To address the possibility of seasonal changes in background oiling rate, twelve survey events will occur over the course of one year. Each survey event will be two weeks in duration, separated by roughly two weeks.

Sample Units.—The sample unit is an observation (on a particular day) in one area of all birds of each species that can be confidently identified as being either visibly oiled or as not visibly oiled following guidance under Appendix A, NRDA Oiling Levels. The observations will be made at breeding colonies, foraging areas, or roost/loafing sites that contain at least 50 individual birds, which can include dense flocks or loose aggregations.

Number of Birds Sampled.— All species of birds are of interest; however, observers will strive to classify at least 30 individuals of each species within the flock (see Table 1, Examples of

species to monitor for oiling rates, for examples of birds from each group) during each sampling bout (each sampling encounter with a flock of birds). Observations of other species will be obtained as conditions and time allow.

Data Collection.—Colonies or regularly-used roosting areas will be surveyed from ground observation points distant from the colony to eliminate disturbance. Observations of birds at sampling sites will be made every two weeks with good quality binoculars (8 x 40 or 10 x 40) and/or with a 15-45 x 60 or 20-60 x 80 spotting scope. Good quality 12 x 50 binoculars may be used if mounted on a tripod. Only birds that can be confidently classified as being either visibly-oiled or not visibly-oiled will be used in determining the oiling rate under this study. A laser range-finder will be used to categorically measure (e.g., to the nearest 10 meters) the distance between the observer and group of birds being observed. Measurements will not be needed for every bird, but will be used to help calibrate 10 meter categories for detection probability estimates.

Survey Frequency and Duration.—Typically no more than two hours would be spent at a sampling site making oiling observations. Twenty-four weeks of searches, separated roughly by two weeks between each survey event, will be completed in the period covering one year period beginning in 2014.

Table 1. Examples of species to monitor for oiling rates.

Types of Bird Groups Expected to Be Encountered	Examples of Species in These Groups	
Wading Birds (including coastal herons, egrets, ibis, etc. that nest in mixed colonies)	<i>Great Egret</i>	<i>Willet</i>
	<i>Reddish Egret</i>	
Large-moderate sized seabirds and waterfowl that typically forage nearshore (< 20 km from the shore)	<i>Brown Pelican</i>	<i>Laughing Gull</i>
	<i>White Pelican</i>	<i>Sandwich Tern</i>
	<i>Scoter (species)</i>	<i>Royal Tern</i>
	<i>Teal (species)</i>	<i>Forster's Tern</i>
Moderate-small sized seabirds, shorebirds, and waterfowl that typically forage along the coast or in estuaries	<i>Black Skimmer</i>	<i>Least Tern</i>
	<i>Sanderling</i>	

5.0 DATA COLLECTION AND MANAGEMENT

Appendix B, “Data Collection Standard Operating Procedure (SOP) for Background Oiling Rate for Live Birds: Completeing the Datsheet for Bird Study #25,” contains detailed instructions on how to fill out the datasheet.

5.1 Field Data Handling and Transfer

Prior to concluding each field day, teams will share all datasheets, track logs, and official photographs with each other if requested. Louisiana representatives, if present, may photograph or scan datasheets on a daily basis if desired. Field team members will also share electronic copies of all photographs taken on a daily basis. On field efforts where Louisiana representatives are present, those field representatives will be responsible for transmitting the day’s data to their appropriate headquarters.

In the event that the data is collected in Louisiana without a Louisiana representative present, copies of those data (datasheets, track logs, photos, any and all data collected as part of the field effort) will be provided to the Louisiana Oil Spill Coordinator's Office within two weeks following field work. In the event that transfer of such data is delayed due to equipment malfunction or other reasons, it will be provided to the Louisiana Oil Spill Coordinator's Office as soon as practicable.

After the field study is completed, the Trustees (or their contractor) will generate an End of Study Report that discusses field activities, notes deviations (if any) from agreed SOPs, and provides summary metadata on the data generated by the study (e.g., total number of datasheets generated, types of datasheets generated, total number of photos, etc.). This End of Study Report will be shared with all signatory parties.

At the end of each day, the datasheet will be signed by participating Trustee and BP/Entrix (if the study is cooperative) representatives from the field team. Each team will download the day's photographs to a computer as a backup to the data on the camera memory card, as per Appendix C, Standard Operating Procedure: Digital Photo-documentation. GPS track logs should also be backed up (downloaded) to a computer at the end of each day. Original datasheets and electronic files will be maintained by the designated Trustee representative on a field team. Chain-of-custody procedures will be observed at all times for all samples (if any are collected), completed datasheets, and camera memory cards.

The federal Trustee representative on each field team will retain custody of all completed datasheets until they are transferred to the USFWS *Deepwater Horizon* NRDA Field Office, at the end of the study for archiving (and data entry into the DOI DWH NRDA database). The field team's camera memory card will remain in the custody of the federal Trustee representative on each field team until the completion of the study and will be archived at the FWS NRDA Office in Fairhope.

5.2 Sample Handling

No samples are anticipated being collected pursuant to this Work Plan. No laboratory analyses are being conducted pursuant to this Work Plan.

5.3 Final Disposition of Original Data and Datasheets

All data, original datasheets, notes, and electronic files, must be transferred to the U.S. Fish and Wildlife Service's Fairhope, Alabama, NRDA Office following Chain-of-Custody procedures, with copies to the Louisiana Oil Spill Coordinator's Office on behalf of Louisiana for data collected in that state on a biweekly basis. Camera memory cards will be submitted to the U.S. Fish and Wildlife Service's Fairhope, Alabama, NRDA Office under Chain-of-Custody after a card is full or after the study is completed pursuant to a protocol for transferring and uploading digital photos. Prior to transfer, if a Louisiana representative is present, the Louisiana Oil Spill Coordinator's Office on behalf of Louisiana will receive copies of all camera memory cards, unless it is more practical for the FWS Fairhope Office to generate the copy.

All materials associated with the collection or analysis of samples under these protocols or pursuant to any approved work plan, including any remains of samples and including remains of

extracts created during or remaining after analytical testing, must be preserved and disposed of in accordance with the preservation and disposal requirements set forth in Pretrial Orders (“PTOs”) # 1, # 30, #35, # 37, #39 and #43 and any other applicable Court Orders governing tangible items that are or may be issued in MDL No. 2179 IN RE: Oil Spill by the Oil Rig "DEEPWATER HORIZON" (E.D. LA 2010). Destructive analytical testing of oil, dispersant or sediment samples may only be conducted in accordance with PTO # 37, paragraph 11, and PTO # 39, paragraph 11. Circumstances and procedures governing preservation and disposal of sample materials by the trustees must be set forth in a written protocol that is approved by the state or federal agency whose employees or contractors are in possession or control of such materials and must comply with the provisions of PTOs # 1, # 30, # 35, #37, #39 and #43.

6.0 PERMITTING

All necessary permits or permissions for accessing public or private lands will be obtained from the appropriate federal, state, or other entities. Field staff will carry these permits with them at all times during the study. When access to privately held properties is required, landowner permission will be secured. Although no sample collection is anticipated during implementation of this study, it may become necessary to opportunistically collect visibly oiled bird carcasses. All appropriate permits for handling carcasses (e.g., federal Migratory Bird Treaty Act permits, State scientific collection permits) will be obtained as well.

7.0 SAFETY

All safety procedures established in the National Oceanic Atmospheric Administration (NOAA) NRDA Site Safety Plan shall be followed during field implementation (Appendix D: Deepwater Horizon National Oceanic and Atmospheric Administration Natural Resource Damage Assessment Site Safety Plan). Such safety issues include, but are not limited to, boat safety, weather safety, minimum communication equipment, and routine check-ins with a home base. Study-specific safety guidance may be developed as necessary.

8.0 BUDGET

The total field cost for this *Background Oiling Rate* Plan is \$7,338,962. The Parties acknowledge that this budget is an estimate, and that actual costs may prove to be higher. BP's commitment to fund the costs of this work includes any additional reasonable costs within the scope of this approved Assessment Plan that may arise. The Trustees will make a good faith effort to notify BP in advance of any such increased costs.

9.0 STANDARD OPERATING PROCEDURES

Various SOPs are appended to this Work Plan. After field studies are completed, all opportunistically recovered carcasses, if any, will be retained and disposed of in accordance with Pretrial Orders regarding preservation of samples.

10.0 REFERENCES

National Research Council. 2003. *Oil in the Sea III, Inputs, Fates, and Effects*. National Academy of Sciences. 265 pp.

National Response Center Database. <http://www.nrc.uscg.mil/foia.html>

LIST OF APPENDICES

Appendix A: NRDA Oiling Levels

Appendix B: Data Collection Standard Operating Procedure (SOP) for Background Oiling Rate for Live Birds: Completing the Datasheet for Bird Study #25

Appendix C: Standard Operating Procedure: Digital Photodocumentation

Appendix D: Deepwater Horizon National Oceanic and Atmospheric Administration Natural Resource Damage Assessment Site Safety Plan